STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

April 5, 1982

Mr. Peter Behrens, President
Great Salt Lake Minerals and
Chemicals Corporation
P. O. Box 1190
Ogden, Utah 84400

RE: Little Mountain Mine
ACT/057/002
Weber County, Utah

Dear Mr. Behrens:

The staff of the Division of Oil, Gas and Mining has made a preliminary review of your mine plan to determine compliance with the Utah Mined Land Reclamation Act of 1975 (the Act), Title 40-8, Utah Code Annotated 1953.

During the review, a number of questions and concerns have surfaced which should be addressed by your compnay before the permitting process can continue. The enclosed review document addresses these concerns by the Rule Number of the Act to which they pertain. Most of the concerns deal with the expansion of the mine and the reclamation of the plant site and borrow areas. The Division staff realizes that it is difficult to determine final reclamation practices for a mine with a projected life of 200+ years, but we request that you answer each section as completely as possible.

Please feel free to contact me or Susan Linner of my staff if you have any questions or problems regarding this review document or the permitting process.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

Enclosures

JWS/SCL:btb

Rule M-3(1)

The applicant should provide updated maps showing configurations of all ponds, dikes and water flow structures, including those in the newly acquired lease areas. The total disturbed acreage figures should also be updated.

A map of the plant site area should also be submitted showing all present or proposed buildings, any disposal areas for waste, tailings, rejected materials or water, and the drainage plan on the plant site, including the directional flow of water and any drainage diversions or discharge routing areas. These items should be discussed along with a description of any water treatment or sanitary treatment facilities on-site. Accurate figures on disturbance acreage for the plant site and borrow areas should be submitted so that a reclamation surety amount can be established.

We would like a copy of the data on pond effluent quality that was presented to the Bureau of Water Pollution Control, assuring that the pond evaporation and dilution process is not degrading to the Great Salt Lake. We also request a water quality description of any water to be disposed of, as well as limitations on any applicable NPDES permit(s). A description of average annual precipitation and the resulting runoff from disturbed areas should be submitted to evaluate sediment control.

Rule M-3(2)

(b) The possible postmining land-uses (i.e., grazing, wildlife habitat) of the plant site area should be addressed.

(e) A revegetation species list for the plant site and borrow areas should be compiled, taking into account naturally occurring species in the area and the postmining land-use. Any mulching, fertilizing or irrigation techniques to be used should be discussed.

(f) A time table for the accomplishment of each major step in reclamation (i.e., removal or structures, filling and grading, placing overburden or topsoil materials, revegetating) should be submitted. Time can be given as months or years postmining.

Rule M-5

Applicant should submit an estimate of a reclamation surety on the enclosed form. All items on the form, as well as any other reclamation measures necessary, should be addressed for reclamation of the plant site and borrow areas.

Applicant should also indicate a preference for form of the surety, which may be a written contractual agreement, collateral, a bond, deposited securities, or cash.

Rule M-10

(3) Has the applicant, in conjunction with the Utah Division of Wildlife Resources, determined whether or not dikes and berms will be left in the Great Salt Lake postmining? If they will, give some estimate of the life of such structures (i.e., rates of erosion and degradation). Justify leaving such structures by discussing possible benefits to wildlife. Are there any adverse impacts from leaving the structures intact?

(4), (5) Applicant should discuss postmining grading and rounding of areas to be reclaimed, including borrow areas, showing that natural drainages will be free-flowing. If possible, submit cross sections of pre- and postmining topography.

(7) The applicant should submit designs for the main and auxillary roads for the plant site and pond areas and discuss reclamation of roads on the plant site and borrow areas.

(12) In order to set a standard for revegetation success, a baseline vegetation study on representative areas adjacent to the plant site should be undertaken. This requires only that a number of transects be run in representative community types to determine an average vegetative cover value.

(14) The applicant should discuss whether or not additional soil material (from borrow areas or external sources) will be spread over regraded surfaces at the plant site. If so, to what depth will soil be spread, and what volume of materials will be required? If no excess materials will be brought in, a chemical analysis of existing soil materials should be undertaken to determine if the soil material will support vegetation, and, if not, what amendments are necessary. It should be determined if a salinity problem will exist due to stockpiling of salts on-site. If a salinity problem will exist, ways to isolate or neutralize the saline soils should be proposed.

The applicant should calculate the amount of borrow material that is needed on a yearly basis to maintain dikes. How much material is available in the two borrow areas presently used, and how long will they last given the determinations made above? Are there plans for using alternate areas if the current areas are depleted?

Variances

Applicant should complete and return Form MR-8, Commitment to Rule M-10 (enclosed). Detailed justification for any variances requested should be provided with the form.